## **CLAIMS**

- 1. A processing method of processing a glass base material for an optical fiber using a processing apparatus, the processing apparatus including: a pair of rotatable chucks that directly or indirectly grasp respective ends of the glass base material in an axial direction of the glass base material and that are capable of performing relative displacement in an opposing direction; and a burner for heating the glass base material that is movable along the axial direction of the glass base material being grasped, the processing method being characterized by processing the glass base material while preventing the glass base material from being brought into a cantilever state by always holding or supporting the glass base material at two or more points.
- 2. The processing method according to Claim 1, wherein the processing apparatus includes at least one midway holding device that holds or supports midway part of the glass base material.
- 3. The processing method according to Claim 1, wherein at least one of the two or more points at which the glass base material is held or supported is midway part of the glass base material.
- 4. The processing method according to any one of Claims 1 to 3, wherein the glass base material is held at two or more midway parts.
- 5. A processing apparatus that processes a glass base material for an optical fiber, the processing apparatus comprising: a pair of rotatable chucks that directly or indirectly grasp respective ends of the glass base material in an axial direction of the glass base material and that are capable of performing relative displacement in an opposing direction; and a burner for heating the glass base material that is movable along the axial direction of the glass base material being grasped; and at least one midway holding device that holds or supports midway part of the glass base material.
- 6. The processing apparatus according to Claim 5, wherein a supporting mechanism of a holing part provided for the midway holding device has an absorption mechanism that absorbs power from the glass base material.

- 7. The processing apparatus according to Claim 6, wherein the absorption mechanism includes a spring or an air cylinder for receiving load from the glass base material.
- 8. The processing apparatus according to any one of Claims 5 to 7, wherein the holding part includes a heat resistant roller.
- 9. The processing apparatus according to Claim 8, wherein the heat resistant roller is a roller made of carbon.
- 10. The processing apparatus according to Claim 5, wherein the midway holding part is movable along the axial direction of the glass base material being grasped.